

OWNER'S MANUAL

FORTRESS 1700 SERIES

3 & 4 Wheel Scooters



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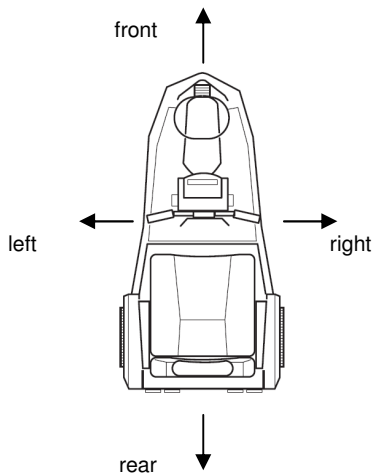
Introduction

Thank you for choosing a Fortress 1700 Series electric scooter.
Welcome to a growing community of people who use a scooter from the Handicare product range.
Handicare stands for reliability and innovative technology, which results in easily operated quality products.

This Manual

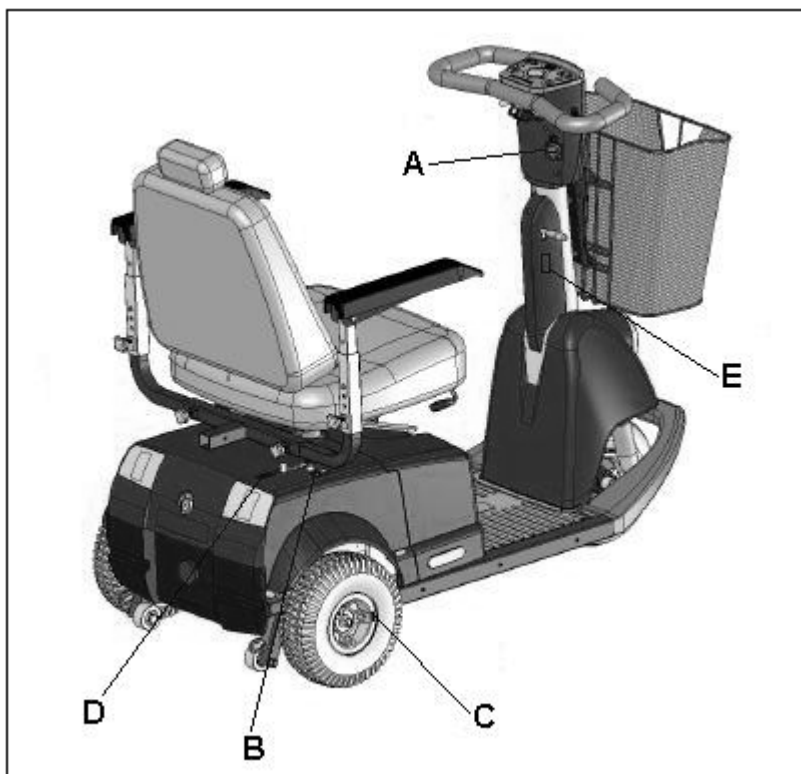
With this manual you can safely use and maintain the product. In case of doubt always contact your dealer.

In this manual, the words "left", "right", "front" and "back" are used to indicate a certain part of the product. This is viewed from the position of the user seated on the scooter.



Please refer to the back cover of this manual to find to your scooter's serial number, model description, and your authorized Handicare dealer. This information will be helpful for any product assistance that you may require in the future.

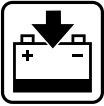
Product Labels



The product has the following decals and labels:

- A. Charging connection
- B. Circuit breaker
- C. Tire pressure wheels
- D. Freewheel lever
- E. Tiller angle adjustment

Product Labels



A. Charging connection

For charging of the batteries, see 'Charging the batteries'.



B. Circuit breaker

The scooter has a safety circuit breaker feature. See 'Automatic circuit breaker'.



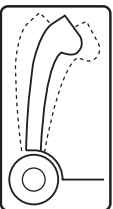
C. Tire pressure

For tire pressure of the wheels, see 'product specifications'.



D. Freewheel Lever

1. Lever in the full rear position (brake engaged):
The drive motor has been engaged: the scooter can be electrically driven and the brakes are engaged when the scooter is switched off.
2. Lever in the full forward position:
The drive motor is disconnected: the scooter can be pushed manually.



F. Tiller angle adjustment

Adjust the steering tiller to obtain a position that is most comfortable for you while driving. See 'Adjusting the steering tiller'.

Symbols used in this manual:



CAUTION

Poorly executed procedures that can result in damage to the product, the environment, or injury to the user.

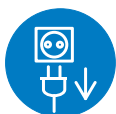


ATTENTION!

Suggestions that help specific procedures to be carried out more easily.



Consult the specified information source(s) first.



Disconnect the charger cord from the charging connection of the scooter before doing any maintenance on the scooter.

Service and Technical Support

For information concerning specific settings, maintenance or repair work, please contact your dealer. He is always prepared to help you.

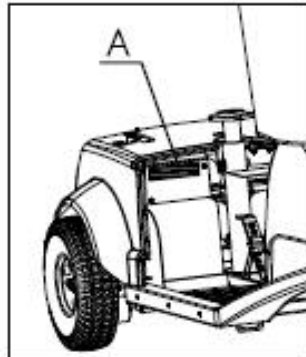
Ensure you have at hand:

- Model
- Serial number

This information is provided on the identification plate. See diagram below.

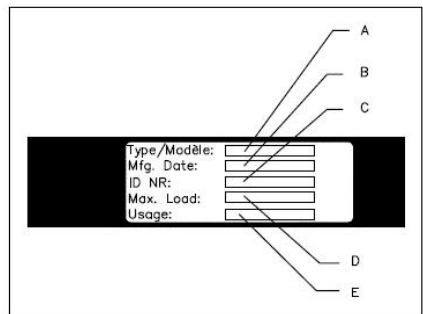
Identification plate

Product information can be found on plate (A). See: 'Identification of the product' below.



Identification of the product

- A. Model
- B. Date of manufacture
- C. Serial/Identification number
- D. Maximum load
- E. Usage: Indoors, Outdoors, or both



Approvals

The product meets the following requirements:

- EN12184; 1999 Electrically powered wheelchairs and scooters, class B.
- ISO7176-8 Requirements for static, impact and fatigue strengths.
- ISO7176-9 Climatic tests for electric wheelchairs and scooters.
- ISO7176-14 Requirements and test methods for power and control systems for electric wheelchairs.
- ISO7176-16 Requirements for resistance to ignition of upholstered parts.

The product has been EMC-approved (for electromagnetic compatibility) in accordance with EN12184.



CE declaration

The product complies with the regulations of the Medical Devices Directive and therefore bears the CE mark.

Use for intended purposes ⁽¹⁾

The Fortress 1700 DT and TA scooters were developed for:

- The transportation of people weighing up to 350 lbs (DT), 300 lbs (TA)
- Use on pavements, groomed footpaths and cycle paths
- Use in and around the house

The dealer must give you clear instructions before you start operating the product independently.

Your first test drives of the Fortress 1700 DT or TA are best carried out under the supervision of an experienced dealer.

The Fortress 1700 DT and TA scooters are not classified as road vehicles and therefore may not be used on the road (crossing over the road being the only exception).

The Fortress 1700 DT and TA scooters have a maximum speed of 10 km/h (6 mph).

ENSURE THAT YOU ARE FULLY ACQUAINTED WITH THE CONTENTS OF THIS MANUAL BEFORE STARTING TO DRIVE THE FORTRESS 1700 DT or TA.

If you use the scooter in a dangerous fashion, or use the scooter for purposes other than those for which it is intended, Handicare will accept no liability for any personal injury or damage to property caused by such misuse.

(1) Intended use, as specified by EN 292-1, means the use for which the technical product is suitable according to the manufacturer's declaration, including the manufacturer's instructions in the sales brochure. In the event of doubt, use is taken to mean the use as construed from the design, construction and function of a product. The instructions contained in the user manual must also be followed within the scope of intended use.

Warranty: Fortress 1700 DT and TA

Handicare warrants to the original buyer that the new equipment sold by an authorized Handicare dealer is, at the time of delivery to the buyer and for the defined time periods (found below) following such delivery, free from defects in material and workmanship and meets designed performance levels. Handicare agrees that, during the defined time periods, it will either repair or replace, at Handicare's sole option, any part or parts of new equipment which under proper and normal conditions of use proves to be defective or fails to meet designed performance levels.

The warranty time periods for various components of the Fortress 1700 DT and 1700 TA are defined as follows:

Component	Warranty Period
Frame	
Main Frame Weldment	➤ Lifetime
Tiller Framing and Steering Structure	➤ 3 Years Non-Pro-rated
Seat Assembly	➤ 1 Year
Drive System	
"Duro-Torque" Motor and Differential (1700 DT)	➤ 3 Years Non-Pro-rated
Transaxle and 2-Pole motor (1700 TA)	➤ 2 Years Non-Pro-rated
Bearings for Differential (1700 DT)	➤ 1 Year
Electrical	
Controller, Wiring Harnesses, Electronics, Charger	➤ 2 Years Non-Pro-rated

Exclusions and Limitations

- Equipment modified other than by Handicare is not covered by this warranty.
- Tires, inner tubes, plastic covers, basket, brake pads, motor brushes, wheel bearings, chain, fuses, light bulbs, arm pads, and seat upholstery are considered wear items and are not covered by this warranty.
- Cosmetic appearance of items will change as a result of use and are not covered by this warranty.
- Items added to the equipment by the buyer or by a user are not covered by this warranty.

Warranty: Fortress 1700 DT and TA

Exclusions and Limitations Continued...

- Any damage to items added to the Handicare supplied equipment, caused by the Handicare supplied equipment, is not covered under this warranty. Any damage to the Handicare supplied equipment by the additional equipment is also not covered by this warranty.
- Any use of the equipment outside the criteria published in the current Handicare sales brochures, or beyond the manner, in which a prudent person would normally use the equipment, will void this warranty (i.e. abuse and misuse).
- Labour and shipping are not covered by this warranty.
- Any batteries supplied by Handicare are covered by the battery manufacturer's standard warranty.

Warranty Claims

All claims for warranty-covered parts under the above warranty must be presented to Handicare by an authorized dealer within forty-five (45) days of the event upon which any warranty claim is made. Handicare reserves the right to refuse the warranty claim should the claim not satisfy the basic requirements.

The foregoing warranty is exclusive and in lieu of all other express warranties. Implied warranties, if any, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, shall not extend beyond the duration of the express warranty provided herein. Handicare shall not be liable for any consequential or incidental damages whatsoever.

For all warranty inquiries, please contact your authorized Handicare dealer.

Recommendations

Please complete the Handicare Warranty Registration Card. Mail it to Handicare within 10 days of delivery of the equipment. This will assist Handicare to initiate and to provide your appropriate warranty coverage.

Your equipment must receive an annual service inspection by an authorized Handicare dealer within 30 days of the anniversary of the purchase date.

1 General safety rules and regulations

Handicare accepts no liability whatsoever for damage or injury caused by the failure to (strictly) adhere to the safety rules and regulations or else due to carelessness during the use and cleaning of the scooter and possible accessories. Depending on the specific operating circumstances or the accessories used, additional safety instructions may be required. Please contact your dealer immediately if you observe any potential danger during the use of the product.



The user of the scooter (see under 'use according to purpose') is at all times fully responsible for the fulfilment of the locally applicable safety rules and regulations.

1.1 *Labels and instructions on the scooter*

Signs, symbols and instructions placed on this scooter comprise part of its safety guidelines. They must never be covered or removed and must remain present and clearly legible throughout the entire life span of the scooter.

- Immediately replace or repair illegible or damaged labels, symbols and instructions. Contact your dealer with regard to this.

1.2 *Technical specifications*

The technical specifications must not be altered.

1.3 *Modifications*

Modifications to parts of this product are not permitted.

1.4 *Safety*

To avoid accidents and undesirable situations, it is of great importance to pay attention to the following safety regulations:

Pay extra attention to driving on slopes:



- **Never remove safety devices, such as anti-tip wheels**
- **Never drive the Fortress 1700 DT/TA up a slope with an angle greater than the guidelines listed on page 34 of this manual.**
- **On slopes, always drive slowly and with great awareness.**
- **Never drive down a slope at full speed.**
- **Do not drive down slopes with loose gravel or a sandy surface, because one of the back wheels might slip.**
- **Do not turn on a slope.**



- Never take a turn at full speed. Decrease speed when taking a turn.
- When driving up a slope, assume a body position for increased stability, as described in detail on page 33 of this manual.
- Ensure that no items of clothing hang loose as these could become caught between the wheels.
- Ensure that your fingers do not get caught in the mechanism for adjusting the angle of the steering tiller or the mechanism for flipping up the armrests

You must adjust your driving according to these circumstances:



- Drive carefully on slippery surfaces resulting from rain, ice, or snow!
- Drive more slowly in crowded environments.
- Do not use the scooter on uneven surfaces and/or ungroomed footpaths and cycle paths.
- Ensure that the Fortress 1700 DT/TA does not come into contact with salt water. Salt water is caustic and may damage the scooter.
- Ensure that the Fortress 1700 DT/TA does not come into contact with sand. Sand can affect the moving parts of the scooter, resulting in unnecessarily rapid wear.
- Never operate the scooter if you are under the influence of drugs, alcohol or medication that could affect your driving ability.
- You must have sufficient visual acuity to be able to drive safely in the scooter.
- It is obligatory to turn on the lights in case of reduced visibility. The scooter has been equipped with brake lights that light up when you brake.
- Only use the indicator lights to indicate an intended change in driving direction.
- Only use the horn when it is necessary to warn pedestrians or other road users of dangerous circumstances.



- Always remove the jack key from the jack key receptacle when not driving the scooter, even if you plan to remain seated on the scooter while it is parked. This will ensure that there will be no accidental activation of the forward/reverse lever resulting in unexpected movement of the scooter.
- Never place metal parts on top of the batteries: this may cause a short circuit in the batteries, resulting in damage.



- Do not carry any passengers: your scooter was specifically designed to transport only yourself.
- Do not drive your scooter with the backrest reclined too far. It may affect weight distribution and therefore the rearward stability of the scooter, especially when driving on inclines or encountering obstacles.
- Do not burden your scooter with any more load than can be placed in the basket.
- Never hang anything from the handlebars.
- Never use your scooter to tow a trailer. The scooter was not designed for this. It can cause serious damage to your scooter.
- Do not stand on the floor pan to reach objects.
- Do not place your feet close to the front wheel and fork when the unit is moving. Always keep your feet on the rubber mat, rather than against the front cover.
- Never operate the scooter with the plastic cover shrouds removed.
- Never attempt to stand on the plastic cover shrouds.
- Any replacement of fuses on the scooter must be done by an authorized Handicare dealer.

The scooter is electronically operated. Certain parameters have been factory-set. These settings are designed to allow comfortable and efficient use. These parameters cannot be changed. The standard version of your scooter was tested in accordance with the most stringent requirements for electro-magnetic interference. When using a mobile telephone in the vicinity of a scooter with special adaptations, you are advised to first switch off the scooter. Your scooter may influence electromagnetic fields such as alarm systems. If the electronics of the scooter is not properly shielded, this may affect sensitive electrical appliances, such as shop alarms and garage openers. The scooter has been tested for this. Should any problems of this nature occur, please report these to your dealer immediately.

- Take care in ultra-violet light: this may cause premature deterioration of materials such as rubber, plastic and enamel.
- Be aware of any objects that may protrude from the unit that could cause damage to your surroundings or to the unit itself.
- Keep your scooter away from open flames.
- Avoid extreme weather conditions or extremely wet conditions. Maintain and store the scooter in a clean and dry state.

2 General Description

The Fortress 1700 DT and TA are electrically driven scooters for general use in outdoor and indoor environments.

The height of the seat is adjustable according to the leg length of the user. The seat can be rotated and the armrests folded back by the user for ease of getting on or off the scooter.

The steering tiller is adjustable to enable a comfortable driving position.

When driving at higher speeds, one should be extra careful. Slow down, especially on sidewalks and in pedestrian areas.

The following should be kept in mind when using the scooter:

- A scooter is not a motorised vehicle in the traffic regulations sense. You have the same rights and duties as a pedestrian.
- At all times, you are responsible for keeping your scooter in perfect working order, so that driving the scooter is safe.
- The scooter is a technical product. Therefore, any repairs and maintenance should be carried out by qualified personnel. If any work needs to be done, you should contact your dealer.

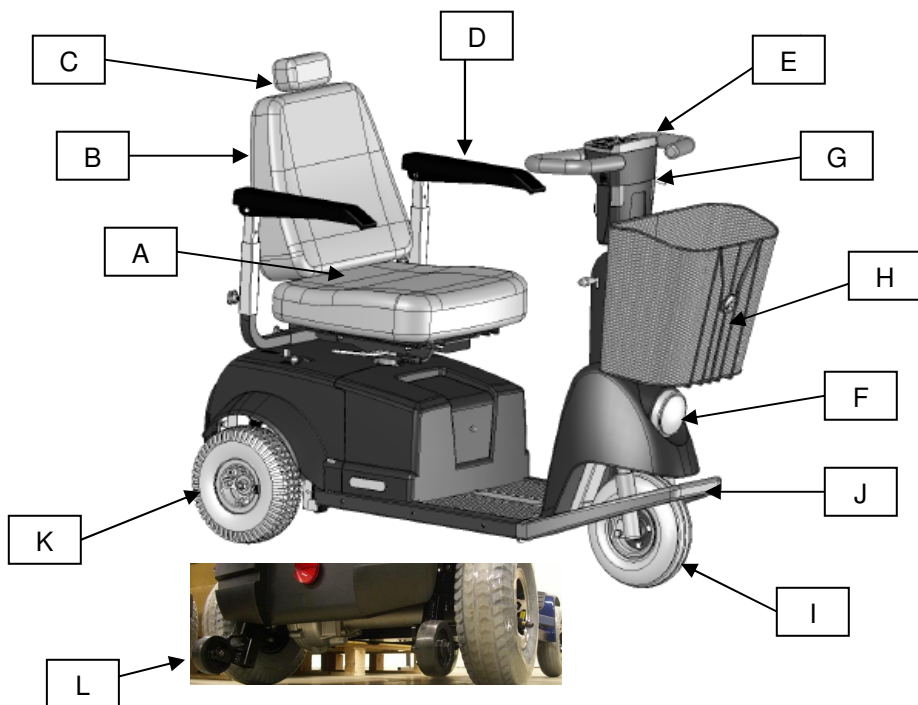
3 Main Components

The following main components are, or may be, installed on the scooter:

- A. Seat.
This is where the user is seated
- B. Backrest.
To support the back of the user
- C. Head rest
To support the head.
- D. Armrest.
To support the arms
- E. Steering Tiller
The console and all operating keys and handles are located on the tiller
- F. Lights
When driving in the dark the lights should be turned on
- G. Turn Signals
To indicate a change in direction while driving
- H. Detachable fixed mounted basket
For carrying personal items
- I. Front wheel
Front wheels offer suspension
- J. Front bumper
Protects the front wheel in case of a collision
- K. Rear wheels
Rear wheels offer suspension
- L. Anti-tip wheels
Wheels to prevent the scooter from tipping over backwards on slopes

(See next page for location of these components on the scooter)

Various features and components can be adjusted for optimum seating comfort.



4-wheel model:



4 Adjustment options

The Fortress 1700 DT/TA seat offers a number of adjustment options to increase sitting and driving comfort.

The following may be adjusted:

- A. Seat height
- B. Seat depth
- C. Backrest angle
- D. Armrest width
- E. Armrest height
- F. Head rest
- G. Steering tiller

4.1 Seat adjustments

4.1.1 Adjusting the seat height

The whole seat may be adjusted in height up to obtain an optimal seating position. This adjustment should be made by the dealer.

4.1.2 Adjusting the seat depth (sliding seat)

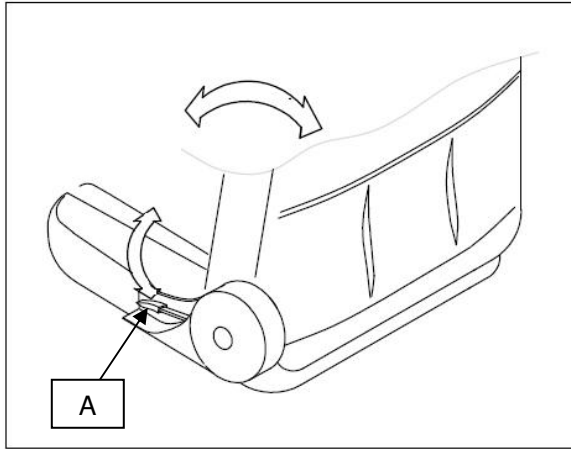
- See illustration (seat may vary slightly from illustration)

Adjust the seat depth as follows:

- Pull lever (A) up and hold.
- Slide the seat forward or back.
- Release the handle when the seat has reached the desired position. Slide the seat back or forward a little so that it locks in place. This will set the seat depth.



4.1.3 Backrest adjustment



The backrest is angle-adjustable. The adjustment must be done as follows:

- Pull up the handle (A) while you are sitting on the seat. The backrest will now automatically move forward.
- Push the backrest to the rear by leaning back until it is in a position that is most comfortable for you.
- After adjustment, release the handle to secure the backrest in the position you have chosen.



Attention:

Be aware when operating the handle when the seat is unoccupied. The backrest is spring-operated and will fold forward quickly and powerfully.

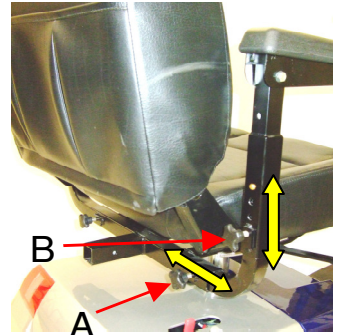


The backrest must be adjusted in such a way that your back is properly supported while driving. If the backrest is tilted too far backwards, this will negatively influence the seating stability, especially on slopes. Never drive your scooter with the backrest reclined too far back.

4.1.4 *Adjusting the armrest*

Adjust the armrests as follows:

- The armrest width adjustment knobs (A) are located at the rear of the seat.
- To loosen armrest, turn the knob counter-clockwise.
- After selecting a new width, re-tighten knobs and ensure the armrests are secure.
- The armrest height adjustment knobs (B) are located on the armrest posts.
- To loosen armrest, turn the knob counter-clockwise.
- Push the detent button and raise or lower the armrest into one of three positions.
- After selecting the new height, re-tighten knobs and ensure the armrests are secure.
- The armrests are capable of safely supporting 200 lbs of weight.
- Do not sit on the armrests.



4.1.5 *Adjusting the headrest*

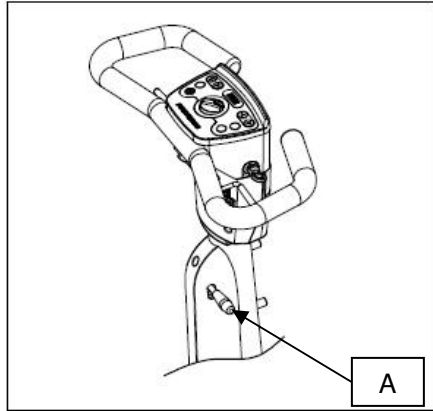
The headrest can be adjusted to several different heights.

Adjust the height of the head rest as follows:

- To raise or lower the head rest, press the plastic button located on the left side where the head rest mounts to the seat. At the same time, move the headrest to the required height. It will engage into one of three positions with a click.

4.2 Adjusting the steering tiller

The steering tiller can be adjusted for driving comfort and ease of getting on and off the scooter.



The steering tiller can be adjusted as follows:

- Pull handle (A) down with one hand, while at the same time pulling the steering tiller towards you with the other, until the most comfortable position is reached.
- Then release the handle to set the chosen position. Then, release the steering tiller.

If you release the steering tiller while still pulling the handle down, the gas-spring-loaded steering tiller will move to its most forward position.



Use caution when adjusting the steering tiller to avoid getting your fingers pinched.

4.3 Adjusting the rear suspension

The rear suspension of the scooter can be adjusted to provide optimal comfort. This adjustment is to be carried out by the dealer.

5 Operation

5.1 *Charging the batteries*



**For charging, see the following documentation:
Regulations concerning the batteries
User manual for the battery charger, or the instructions on the
battery charger**

The scooter uses gel batteries. These batteries are entirely sealed and maintenance free.

With normal daily use, the batteries should be recharged every night. If you use your scooter only occasionally (once per week or less), the batteries must be fully charged at least once per week.

Charging should be done as follows:

- Switch off the scooter.
- Put the plug of the charging cable into the charging connection. See 'Charging connection'.
- Put the plug of the battery charger into the wall socket of the main power supply.



Safety:

The scooter will not operate as soon as the plug of the charging cable is connected to the charging connection.



The battery charger has been designed in such a way that batteries cannot be overcharged.

When the batteries are no longer charging, the charging current will automatically drop until the charging is stopped completely: the batteries are fully charged.

The minimum charging time for gel batteries is approximately 8 hours. Most batteries will have reached 80% of their capacity after 8-12 hours' charging time.

In order to optimize your battery life:

- In general, keep your batteries fully charged
- Avoid deeply discharging your batteries
- Do not store your batteries without being fully charged
- Avoid storing your batteries in areas of extreme cold or heat.

When the batteries are charged:

- Switch off the battery charger, if applicable.
- Unplug the battery charger from the wall socket of the mains power supply.
- Unplug the charger from the charging connection on the scooter.

The scooter is now ready for use.



Always remove the charging cable when the batteries are charged. This way, you prevent the batteries from slowly depleting themselves.

5.1.2 Battery Charger



Use only the supplied battery charger to charge the batteries. Maximum allowable charger capacity is 5 Amp.

5.2 Driving the Fortress 1700 DT/TA

The following topics are covered in this manual in order to enable you to drive your scooter:

- Inspection before use
- Console
- Driving
- Getting on or off
- Pushing
- Disassembly

5.2.1 Inspection before use

It is important to check the following prior to driving your scooter:

- Make sure the seat is properly locked in place.
- Make sure all lights and turn signals are working properly, both at the front and the back.

Make sure the tires are sufficiently inflated. (50 psi). See 'Product Specifications'.

- Poorly inflated tires have a negative effect on the driving characteristics.
- Poorly inflated tires cause higher power consumption, depleting the batteries more quickly.
- Poorly inflated tires cause unnecessary wear to the tires themselves.

- Make sure the batteries are sufficiently charged: this is indicated by the green zone on the battery-condition indicator. See 'Console'.



In winter, batteries have a lower capacity. In case of light frost, the capacity drops to about 75% and at a temperature of less than -5 degrees, it will drop to about 50% of the normal capacity. This will decrease the range of the scooter.

- Make sure the free-wheel lever is in the 'Brake Engage' position. See 'Free - wheel position of the scooter'.
- Make sure the brakes are functioning correctly. See 'Driving procedures'.

If the scooter starts behaving in an unpredictable manner, let go of the throttle levers and let the scooter come to a complete stop. Remove the jack key from the console and then reinsert to restart the scooter.

If everything is in order, the scooter can be driven.

5.2.2 *Getting on and off the scooter*

(Seat may differ slightly from illustration)



Before getting on or off, the scooter should be switched off by removing the jack key. The free-wheel lever must also be in the "Brake Engaged" position.

- Before getting on the scooter, the armrest can be flipped up and the seat can be rotated.



Getting on the scooter:

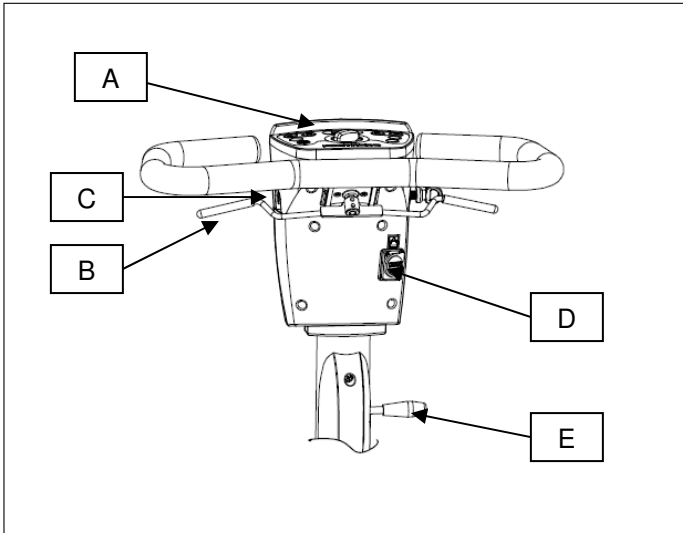
- Switch off the scooter.
- Move the seat-lock handle (A) toward the front of the scooter and rotate the seat 90 degrees to the left or to the right. When you release the seat-lock handle, the seat will automatically lock: the handle will click into place.
- Now you can seat yourself.
- The seat can be rotated back as described above.

When the seat has been rotated to its original position, it will click back into place. This way it cannot inadvertently turn while driving.

The seat is provided with armrests that can be flipped up so that you can get on or off from the side. After getting on or off, always check whether the armrests are in the proper position.

- Getting off the scooter should be done in reverse order.

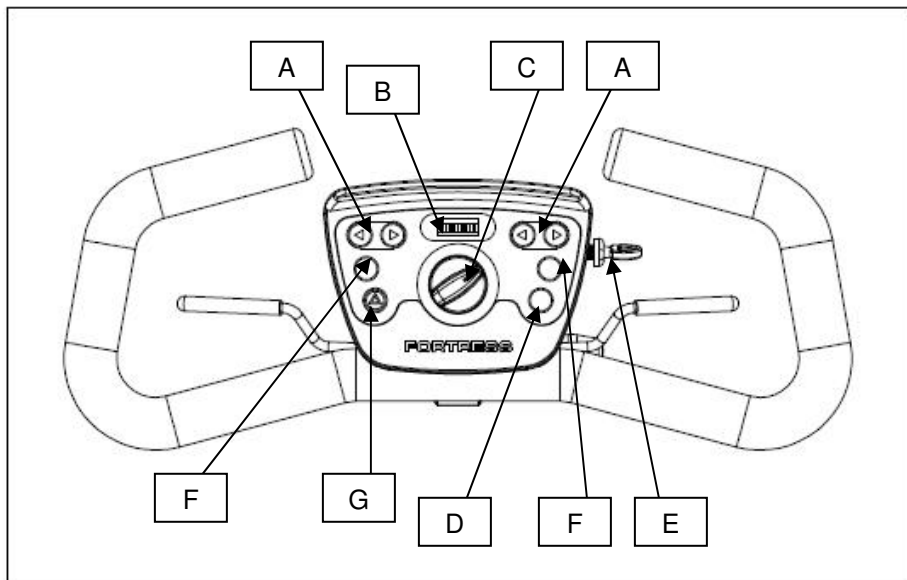
5.3 Operating controls



The scooter is equipped with the following operating controls:

- A. Console with all of the control buttons and indicators
- B. Forward / reverse levers
- C. Fuse for the lighting
- D. Charger connection port. See 'Charging the batteries'.
- E. Angle adjustment lever for tiller.

5.3.1 Console Panel



The console panel is provided with the latest technology and offers reliable and useful functions for the operation of your scooter:

- A. Left & right turn signals*
- B. Battery-condition meter
- C. Speed select knob
- D. Lights
- E. Jack key
- F. Horn*
- G. Hazard lights

*These buttons have been mounted on both the right and the left of the console panel.

**A Turn Signals left / right**

By pressing the button (on the left or on the right), the indicator will start flashing to indicate that you intend to change your driving direction:

- activate the button on the left if you wish to turn to the left
- activate the button on the right if you wish to turn to the right.

A beeping sound will be activated while the indicator is turned on.

As soon as you have completed your left or right turn, activate the same button again to turn off the indicator.

**B Battery-condition Meter**

The battery-condition meter gives a general indication of the condition of the batteries. Reading from left to right, the battery-condition meter has three red indicator lights, three orange lights and four green lights. The batteries are completely charged when all the lights are illuminated. As the battery level decreases the lights will go off one by one, starting with the green lights on the right. The indicator lights indicate the battery voltage available for the controller. It is normal that the meter goes down during conditions of initial acceleration as the extra load will cause the voltage to drop momentarily. This momentary drop is not a true reading of battery capacity. Also, when the scooter is first powered up, the indicator may initially show full charge even if the batteries are not fully charged. This is a characteristic of the batteries. For this reason, **the most accurate battery reading is obtained when riding on a flat surface.**



If the battery indicator remains in the RED zone, it is important to recharge your batteries as soon as possible. **Never fully discharge your batteries by overuse as this will shorten battery life and could cause battery damage.**

**C Speed Select Knob**

With this knob, the desired maximum speed is set. Turning clockwise will increase the speed (the maximum has been set by the manufacturer to 5.5 mph (1700 DT) or 6 mph (1700 TA). Turning counter clockwise will reduce the maximum speed. Select a speed position before driving in accordance with the driving conditions, such as driving in cramped spaces or in a room with many people.



D Lights

Pressing this button once will turn on the front and rear driving lights.

Pressing this button a second time will turn the lights off.



F Horn

The horn buttons are used to give a warning sound in dangerous situations.

The horn will sound for as long as you keep the button pressed.



E Jack Key

To switch on the scooter, the jack key has to be inserted into the jack key receptacle.

All of the Fortress 1700 DT & TA's functions, with the exception of the hazard lights, only operate if the jack key has been inserted into the receptacle.

The hazard lights will always work, even if the jack key has not been inserted into the jack key receptacle.



G Hazard Lights

Pressing this button will turn on the hazard lights.

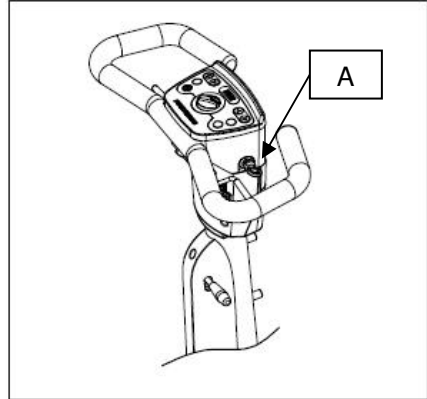
You should use the hazard lights if you fear you will not be seen by other traffic, or if you are stopped because of a malfunction.

Pressing this button a second time will switch off the hazard lights. A beeping sound will activate while the hazard lights are turned on.

5.3.2 Switching on

The scooter should be switched on as follows:

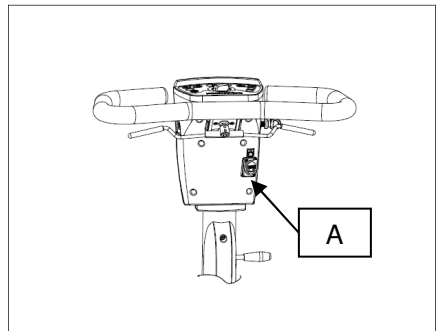
- Insert the jack key into the jack key receptacle as far as it will go (A).



5.3.3 Charging connection

- The charging connection (A) is located on the steering tiller under the console. This is the point to which the battery charger cable can be connected.

All electronics should be switched off during charging of the batteries. Remove the jack key before charging.



5.4 Driving Procedures

Before driving the scooter, it should be adjusted optimally to your personal needs.

After you have carried out all inspection points, you can seat yourself in the scooter. See 'Getting on or off the scooter'.

Now you may start to drive.

As a scooter driver, keep in mind that other people may not always notice you. Always be aware of the people and traffic around you.

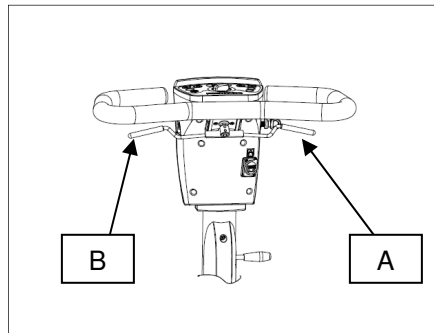
5.4.1 Driving forward and in reverse

- Switch on the scooter.
See 'Switching on'.

The forward/reverse levers are coloured:

Green: forward driving (A)

Yellow: reverse driving (B)



Forward driving

- Driving forward using finger control:
Slowly pull back on the forward/reverse lever (A) with your fingers. The further you pull the lever towards you, the faster you will drive.

Reverse driving

- Reverse driving:
Release the forward/reverse lever. The Fortress 1700 DT/TA will come to a stop.
- Driving in reverse using finger control:
Slowly pull back the forward/reverse lever (B) with your fingers. The further you pull the lever towards you, the faster you will drive in reverse.



- **Make sure there is nothing behind the scooter before you travel in reverse.**
- **The maximum speed in reverse is equal to half the maximum speed forward.**

Braking and stopping while driving forward or reversing

- By slowly releasing the forward/reverse lever, the Fortress 1700 DT/TA will brake and come to a stop. The brake lights will illuminate automatically.
- If you need to make a sudden stop while driving, you must release the forward/reverse lever immediately.

In normal circumstances, the forward/reverse lever can be released slowly if you wish to stop.

As soon as the scooter is stopped, the automatic parking brake engages.

Remarks:

You can inspect the brakes by suddenly releasing the forward/reverse lever.



When driving at a high speed, you need to be extra careful, especially on sidewalks and in pedestrian areas. In that case, it is advisable to set a lower maximum speed using the speed select knob.

Do not cross a street until you are able to handle the scooter and its controls well.

5.4.2 Corners

Moving around corners in forward direction

Turning left or right:

- By turning the handlebars to the left or to the right, the scooter will change direction and start moving to the left or to the right accordingly.



You should always use your turn signals when making a turn. Always take turns at a safe, often lower, speed.

Reversing while making a turn

Turning left or right:

- By turning the handlebars to the left or to the right, the scooter will change direction and start moving in the opposite direction of the direction you steer.
 - Steering to the right: the scooter will reverse while making a left turn.
 - Steering to the left: the scooter will reverse while making a right turn.

5.4.3 Slopes

- It is important to note that although the Fortress 1700 DT and TA have maximum weight capacities of 350 lbs and 300 lbs respectively, the following safety guidelines must be adhered to when driving up slopes.
- You must assume a body position for increased stability when driving up a slope. This is done by leaning your upper body forward while you are driving up the slope. This will increase the stability of the scooter. The “Increased Stability Driving Position” is illustrated in figure 1 below. Additionally, the scooter’s backrest must never be positioned in a severely reclined position and the scooter seat must be adjusted into a forward position by using the sliding seat lever (see Section 4.1.2, “Adjusting the seat depth”, page 19).

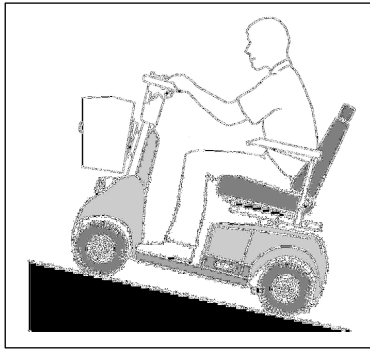
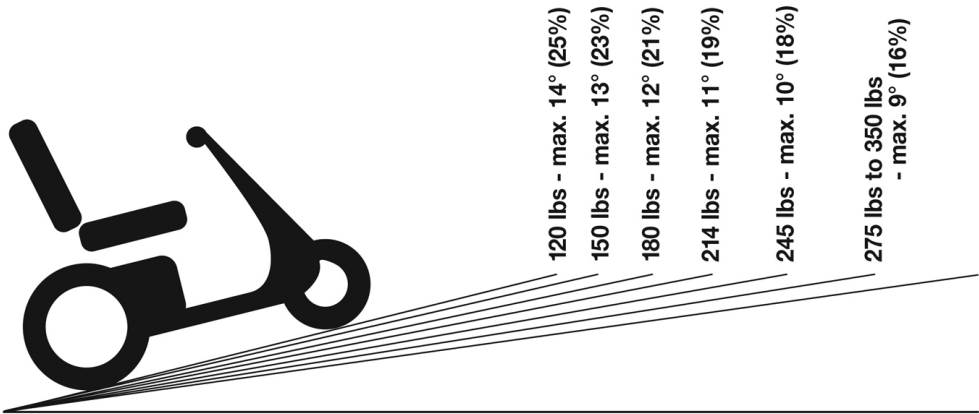


Fig. 1

Increased Stability Driving Position

(Lean slightly forward with the upper body while driving up a slope)

- Driving up slopes with gradients greater than those given in the following table is not permitted.



WARNING! Do not exceed these guidelines under any circumstances as your scooter may become unstable and tip. This could result in personal injury and/or damage to your scooter.



The above measurements were determined with the scooter's seat in the highest and most rearward position. Your scooter's ability to travel up slopes is affected by your weight, your scooter's speed, your angle of approach to the slope and your scooter set up.



NEVER put the scooter in freewheel when parked on a slope. The scooter will roll down the slope due to gravity.

Instructions for Driving up a slope

- Adopt the position for “Increased Stability” shown in figure 1 (page 33) by leaning your upper body slightly forward. This will increase the stability of the scooter. Further adjust your body position by adjusting the sliding seat into a forward position (see section 4.1.2, “*Adjusting the seat depth*”, page 19)
- Drive up the slope at half your normal speed.
- Keep the speed constant as you drive up the slope.
- Avoid sudden and jolting movements such as sudden braking or acceleration.
- Do not change direction or attempt to turn around while driving up a slope.
- The slope should be taken directly head on. You should not turn and/or cut across the slope diagonally.
- Never attempt to go up or down a slope that has potential hazard such as a slope that is covered in snow, ice, grass clippings or wet leaves.
- If you notice a strong decrease in speed when driving up a slope, choose a less steep route to avoid the scooter from overheating.
- If you drive on a slope too long it may result in overheating.
- Whenever possible it is always recommended to choose a route that is not as steep.



WARNING! Do not exceed these guidelines under any circumstances as your scooter may become unstable and tip. This could result in personal injury and/or damage to your scooter.

Driving down a slope

- If you need to drive down a slope, drive at the lowest possible speed and with the utmost control.



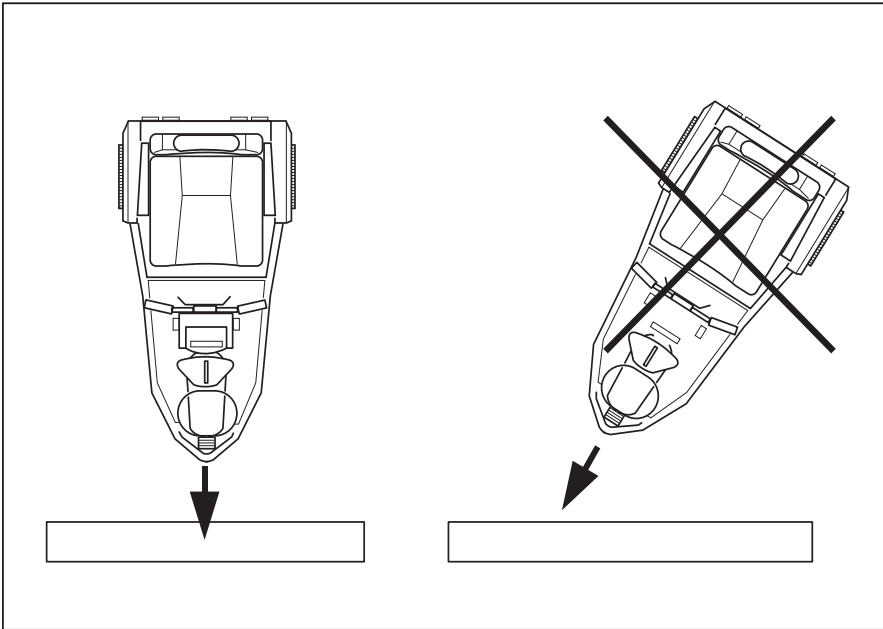
Turn the speed select knob fully to the left (lowest speed) before driving down a slope.

Move the upper part of your body slightly backward and always brake slowly. If you brake too fast, you may cause the scooter to tip.



- **If the scooter is brought to a standstill on a slope, then the automatic parking brake must be applied.**
- **Never put the scooter in free-wheel when on a slope.**

5.4.4 Obstacles



Driving over obstacles

- Drive straight up to the curb or obstacle, almost touching it with your front wheel.
- Push the forward/reverse lever and drive onto the sidewalk without changing direction.
- As soon as the front wheel is on the sidewalk, you need to keep up your speed for the back wheels to be able to move up onto the sidewalk as well.
 - If you cannot drive up onto the sidewalk, find a lower part that is less steep where you can.
 - Any obstacle should be taken in forward direction.
 - It is always recommended to use properly-designed sidewalk transitions instead of driving over curbs.
 - Do not drive over obstacles great than 3".



Practice taking slightly elevated obstacles, and then gradually increase the elevation of the obstacles, until you can take the maximum height. Take your time for this.

Driving off obstacles

- **Use extreme caution when driving off obstacles.**
- Drive straight up to the edge of the sidewalk until you reach the curb.
- Carefully push the forward/reverse lever and allow the scooter to slowly descend from the curb, without changing direction.



It is not permitted to go down stairways as it is extremely dangerous.

The scooter is equipped with anti-tipping wheels for extra stability and safety. Occasionally, these wheels may touch an obstacle when descending from it.

Avoid leaving one of the rear wheels on the obstacle while the other is still on the lower level. This will cause the scooter to become unstable.

5.4.5 Automatic Overload Shutdown

- If an overload occurs as a result of improper or long-term use in hot conditions, the circuit breaker will be activated, causing the scooter to stop. (See Section 7.2, 'Automatic circuit breaker', page 52).
- Remove the ignition key from the receptacle and allow the motor to cool down.
- Incorrect use may also cause unnecessary malfunctions and damage to the scooter.

5.4.6 Switching off

After each ride, the scooter should be switched off completely: This prevents the batteries from unnecessarily discharging and having to be recharged too soon.



Always remove the jack key from the jack key receptacle when not driving the scooter, even if you plan to remain seated on the scooter while it is parked. This will ensure that there will be no accidental activation of the forward/reverse lever resulting in unexpected movement of the scooter.

5.4.7 Parking

After parking, pull out the jack key from the jack key receptacle, so that it is not possible for anyone else to use your Fortress 1700 DT/TA without permission.

After the scooter has been switched off (the jack key has been pulled out of the receptacle), the automatic parking brake will remain activated even if the batteries are removed. If the free-wheel position has been activated, the automatic parking brake will NOT work!



- **If the scooter is brought to a standstill on a slope, then the automatic parking brake must be engaged.**
- **For this reason, never put the scooter in the free wheel Position.**

5.5 Pushing the scooter

In the case of a malfunction or if the batteries have insufficient capacity to power the scooter, it may also be pushed manually.

Pushing the scooter may be useful for parking or storing the scooter in a confined space.

- Switch off the scooter by removing the jack key from the receptacle.
- Put the free wheel lever into the 'free wheel position of the scooter' (see 5.5.1 below).



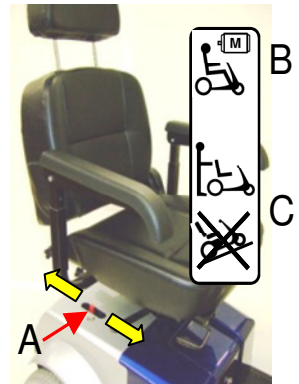
If the scooter is pushed too fast, a built in safety mechanism will automatically activate the motor brake and cause the scooter to slow down.

5.5.1 Free-wheel position of the scooter

To be able to push the Fortress 1700 DT/TA, the automatic parking brake has to be de-activated as follows:

- Move the free-wheel lever (A), located under the seat on the right-hand side of the cover, into the FREE WHEEL position (C). This de-activates the automatic parking brake.

The Fortress 1700 DT/TA automatic brake is activated again by moving the free-wheel lever to BRAKE ENGAGE position (B).



Safety precautions in the free wheel position

The scooter has been provided with a unique safety feature that prevents the scooter from rolling too quickly while in the free-wheel position. If the scooter begins to roll too quickly while in the free-wheel position, the motor brake will automatically slow down the scooter to a stop.



Ensure that the free wheel lever is in the BRAKE ENGAGE position when you seat yourself on the scooter.

NEVER touch the free wheel lever while driving.

Do not touch the forward/reverse lever when you operate the free wheel lever.



The free wheel lever should only be used if the scooter needs to be pushed. By putting the scooter in the free wheel position, the motor is disconnected mechanically, causing the automatic parking brake of the motor not to function. That is why, after pushing the scooter, the lever should be immediately returned to the 'Brake Engage' position, which will activate the automatic parking brake.



Caution:

NEVER switch the scooter into free wheel when you are parked on a slope: the scooter will start moving down the slope as a result of gravity.

If the Fortress 1700 DT/TA is in the free wheel position:

- It is not possible to drive the scooter.
- The electronics can be switched on, but the motor cannot drive the scooter. In this situation, the electronics should be switched off.

To be able to drive the Fortress 1700 DT/TA again, the following steps should be carried out:

- Switch the free wheel lever into the Brake Engage position.
- Switch the scooter on by inserting the jack key into the jack key receptacle. Now, you are able to drive the Fortress 1700 DT/TA again.

5.6 *Disassembling the scooter for storage and/or transport*

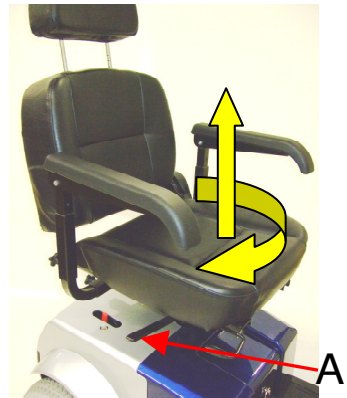
To be able to store the Fortress 1700 DT/TA in a small space or transport it in a smaller vehicle suitable for this purpose, the scooter can be disassembled. This way, it will take up less space. The steps to disassembling your Fortress 1700 DT/TA are as follows.

5.6.1 *Removing the seat*

(Seat may differ slightly from illustration)

The seat should be removed as follows:

- Unlock the rotation mechanism of the seat by pushing the seat lock lever toward the front of the scooter.
- Lift the seat straight up from the seat post.
- Folding the backrest completely forward reduces the size of the seat and can make it easier to lift from its post.



5.6.2 *Separating the scooter*

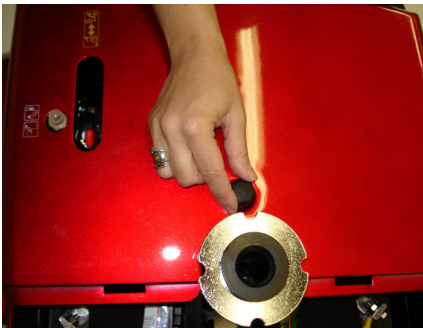
The Fortress 1700 DT/TA scooter has been designed to be disassembled and reassembled quickly, easily and without the use of tools. Should you have any difficulty during either the assembly or disassembly, please re-check the instructions and try again.

NOTE: Ensure the power is off before you disassemble or reassemble your scooter.

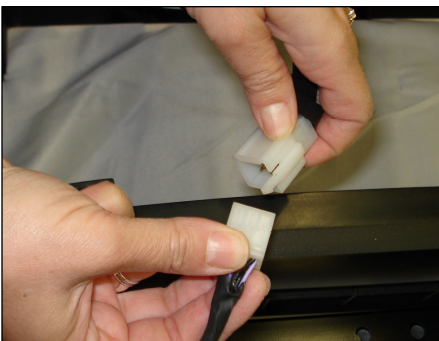
Disassembly Procedure:



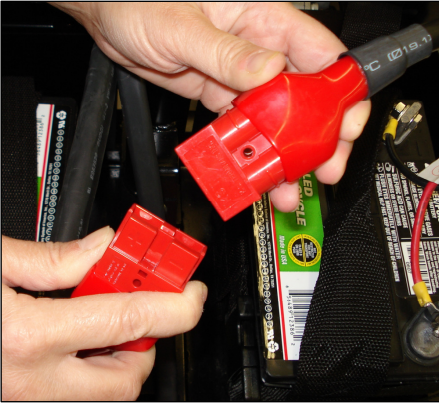
- Remove the battery cover by releasing the elastic strap on the front of the cover and releasing the Velcro attachments on each side of the battery cover.



- Separate the rear cover from the rear frame by turning the knob counter-clockwise and releasing the Velcro attachment points under each side of the cover shroud.



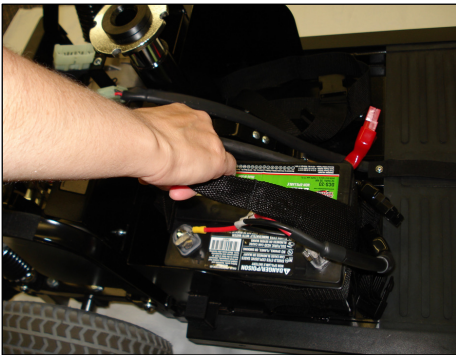
- Carefully tip the rear cover shroud toward the rear of the scooter to expose its underside. Locate the connector for the rear lighting and disconnect it. The rear cover shroud can now be completely removed



- Disconnect the red and black battery cables



- Disconnect the battery hold-down straps



- move the batteries by lifting them up by their carrying straps

CAUTION: The batteries are much heavier than they appear!



- Unplug the main cable before disconnecting the scooter.

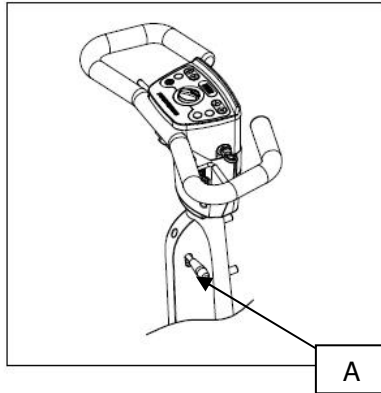


- To separate the front frame from the rear frame, locate the locking latch in the centre of the battery compartment area.
- Push and hold the button on the side of the latch then pull up in order to release the latch. Flip the latch off the hook on the rear frame.



- Grasp the seat post with one hand and the front tiller with the other hand. Gently tip the rear frame of the scooter backward using the seat post until it rests on its rear bumper.
- Grasp the handlebar with one hand and the centre part of the front frame with the other hand. Lift the front frame upwards to separate it from the rear frame. Roll the front frame away from the rear frame, while maintaining balance on the front wheel.

5.6.3 Folding down the steering tiller



The steering tiller can be folded down as follows:

- Pull handle (A) down, while, at the same time pulling down the steering tiller.



Use caution when folding down the steering tiller to avoid getting your fingers jammed.

5.6.4 Handling and Loading

- It is always recommended to have someone help you load your disassembled scooter.
- When placing the disassembled scooter in a vehicle, make sure that the free-wheel lever on the rear section is in the “Brake Engaged” position.
- Once the front section is loaded, the batteries can be replaced back into the battery compartment and buckled down.
- It is your responsibility to ensure that all the components of the disassembled scooter are properly secured in the vehicle so they do not become a hazard in the event of a collision.

5.6.5 Reassembling the scooter

To reassemble the scooter, reverse the steps outlined above making sure that:

- The rear frame is resting on the rear bumper when setting the front frame onto the “J” hooks on the rear frame.
- The locking latch mechanism must be properly engaged when re-connecting the front and rear sections of the scooter.
- The batteries are properly secured with the battery tie-down straps.
- All electrical connections are secured.

5.7 Transporting the scooter fully assembled

The following guidelines must be followed to transport the Fortress 1700 DT or TA scooter fully assembled in a vehicle that is suitable for this purpose:



If the scooter must be lifted into the vehicle, never lift the scooter by its plastic covers and do not attempt to lift it by yourself. If your scooter can fit into a vehicle fully assembled, DO NOT use your scooter as a passenger seat in the transporting vehicle. You must transfer to a regular car seat, even if the vehicle concerned has been adapted for the transport of scooters. The reason is that the Fortress 1700 DT/TA cannot offer the safety that is offered by standard car seats, no matter how well it is fixed to the vehicle concerned.



After the scooter has been placed inside the vehicle, you must make sure that the scooter is not in the free-wheel position.



The scooter should be secured with an approved securement system. Handicare makes no representation of suitability for use with specific securement systems. Handicare also cannot anticipate the situations that may arise in use of public transportation systems. For instructions on how to use a given securement system, please consult its manufacturer and its operating instructions. In the case of public transit please refer to the municipal transit authority.



Note that any disassembled scooter components that are unsecured in the vehicle can cause damage as a result of sudden vehicle movements.

The scooter has attachment points located at the rear and under the front of the floor pan. These attachment points are designed as a convenience feature only.



6 Maintenance

6.1 Maintenance table

In order to optimize your scooter's performance, durability and longevity, it should be serviced regularly by your dealer.

Below, we have indicated what needs to be checked, how often this should be done, and by whom.

Time	Description	User
Daily	<ul style="list-style-type: none">Charging of the batteries after each full day of use	X
Daily	<ul style="list-style-type: none">Checking that the lights are working	X
Weekly	<ul style="list-style-type: none">Checking the tire pressure and tread condition	X
	<ul style="list-style-type: none">Checking for oil leakage underneath the scooter	X
Monthly	<ul style="list-style-type: none">Cleaning of the scooter (see cleaning procedure)	X
	<ul style="list-style-type: none">Cleaning of the upholstery (if necessary)	X
Every three months	<ul style="list-style-type: none">Lubricating the turning system of the seat: to do this, the seat must be removed. See 'Removing the seat'. Lithium grease is recommended.	X

It is strongly recommended that your scooter is serviced by your dealer at least once a year, or, in case of intensive use, once every six months.

In principle, we recommend you that your dealer carries out all maintenance work. The maintenance activities you can perform yourself are indicated in the table above.



If you discover any oil leakage underneath the scooter, contact your dealer immediately. Do not drive your scooter.

6.1.1 Batteries



For maintenance see the following documentation:
Regulations concerning the batteries
User manual for the battery charger, or the instructions on the battery charger

The scooter must be equipped with gel batteries. These batteries are entirely sealed and maintenance free.

A sticker shows the connection diagram of the batteries. This sticker is placed on the inside of the cover of the battery compartment.



Make sure that the batteries are always well charged.
Do not use the scooter if the batteries are almost depleted. This may damage the batteries and you run the risk of coming to an unintended stop. The use of 'wet/lead acid' batteries is not permitted. If the batteries need to be replaced, gel batteries must be used.

6.1.2 Replacing the batteries

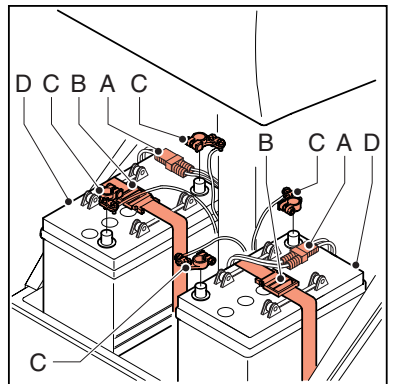
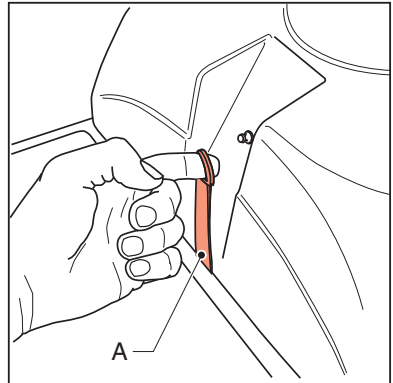
If the capacity of the batteries is reduced to the extent that the scooter can only make very short trips or even none at all, the batteries are at the end of their life span. Replace them as soon as possible.



Contact your dealer: he knows exactly which batteries are most suitable for your scooter.
We also recommend battery replacement should be carried out by your dealer.

Replace the batteries as follows:

- Switch off the scooter (remove the jack key from the jack key receptacle).
- Remove the seat. See 'Removing the seat'.
- Remove the lock (A) from the front of the battery cover (in top diagram).
- Disconnect the red and the black battery connectors from the battery (A) (in lower diagram).
- Loosen the straps, which hold the batteries by squeezing in the clasps (B).



- Unscrew the battery clips (C) from the battery terminals using a wrench with a key width of 13 mm.
- Remove both batteries (D).

New batteries are placed in the reverse order, as follows:

- Put the new batteries in place.
- Fasten the batteries using the straps.
- Connect the cables according to the table below:

No.	Cable colour	Text on label	Connect to
B	Black	Battery 1	Minus terminal of battery 1 (left)
C	Red	Battery 1	Plus terminal of battery 1 (left)
D	Black	Battery 2	Minus terminal of battery 2 (right)
E	Red	Battery 2	Plus terminal of battery 2 (right)

- Tighten the battery clamps.
- Grease the battery clamps to prevent oxidation, using acid-free Vaseline.
- Replace the cover.



Note the correct connection of the cables to the batteries: these are marked with labels.

The connections may NOT be swapped around.

Make sure that the battery terminals and battery clamps are quite clean.



As soon as the new batteries are installed, the batteries must be charged. See 'Charging the batteries'.

Do not allow other metal parts come in contact with two battery terminals at once. This will lead to short circuiting and will have very serious consequences.

6.1.3 Cleaning the batteries

Gel batteries are maintenance free. However, attention must be paid to the following matters:

- Keep the batteries clean and dry: dirt and water may cause a leak, causing the capacity of the batteries to decrease.
- Cleaning the terminals: and after cleaning, grease them with acid-free Vaseline.



Never completely deplete the batteries! This can seriously damage the batteries and considerably shorten their life span.

6.2 Tires

For the proper functioning of the scooter it is very important that the tires are kept at the correct pressure.

6.2.1. Inflating the Tires

The tires are equipped with a car valve. You can have the tires inflated at your dealer or local gas service station, or you can do it yourself using a foot or hand pump. To inflate the tires, remove the cap from the valve. Under-inflated tires can reduce the range of the scooter and increase the wear on the tire treads. For the correct tire pressure, see 'Product specifications'.



When inflating the tires, never exceed the maximum recommended tire pressure. This value is indicated on the tire itself. (Tires inflated to 50 psi.)

For inspection of the tires, see the 'maintenance table'.



After inflating the tires, always make sure to replace the cap back on the valve, to avoid dirt and sand entering the valve.

6.3 Cleaning Procedures

Removing dry dirt

Upholstery, metal parts and frame parts can usually be cleaned easily with a dry soft cloth.

Removing mud and/or other wet dirt

Parts that are soiled with wet dirt can best be cleaned by first wiping the dirty parts with a damp cloth and then wiping them dry with a dry soft cloth.

Upholstery

Clean with a damp cloth. After removing the dirt, the cleaned parts should be wiped dry with a soft dry cloth.



Never use abrasive or aggressive cleansers. They can damage the scooter.

Also do not use organic solvents such as thinner, dry-cleaning naphtha, or white spirit.

Do not spray or pour water on scooter.
Be careful with water near the electronic system.
Upholstery: do not dry clean, iron or spin dry.

7 Troubleshooting

If your Fortress 1700 DT or TA will not function, even though the batteries are fully charged, check the following points before getting in touch with your dealer.

1. Check that all battery clamps are securely in place.
2. Check the free wheel lever to ensure it is in the BRAKE ENGAGE position (not in free wheel position).
3. Check if the automatic circuit breaker button has popped out. If it has, reset the circuit breaker by pushing the button back in position. If it pops out again, contact your dealer.

7.1 Troubleshooting table

If your scooter is not working, or is not working as it should, go through the following list of possible problems before contacting your dealer. You may be able to solve the problem yourself.

Possible cause	Action	Action to be taken by
<ul style="list-style-type: none">• The jack key is not properly inserted into the jack key receptacle.	<ul style="list-style-type: none">• Put the jack key into the receptacle properly.	Yourself
<ul style="list-style-type: none">• The connectors in the motor compartment are not plugged into the controller properly, or they are loose.	<ul style="list-style-type: none">• Check the connectors and make sure they are plugged into the controller properly.	Dealer
<ul style="list-style-type: none">• The battery clamps are not fastened properly.	<ul style="list-style-type: none">• Check the battery clamps.	Yourself
<ul style="list-style-type: none">• The scooter is in free-wheel position.	<ul style="list-style-type: none">• Move the free wheel lever into the BRAKE ENGAGE position, then remove and re-insert the jack key to reset the scooter.	Yourself
<ul style="list-style-type: none">• The automatic circuit breaker has popped out.	<ul style="list-style-type: none">• See 'Circuit breaker'• Push the automatic circuit breaker back in and reset scooter with jack key.	Yourself

Possible cause	Action	Action to be taken by
<ul style="list-style-type: none"> There is a loose connector. 	<ul style="list-style-type: none"> Correct the connection if possible, otherwise contact your dealer. 	Yourself + Dealer
<ul style="list-style-type: none"> The battery voltage is too low 	<ul style="list-style-type: none"> Check the battery voltage. See 'Battery condition meter'. Charge the batteries for 8 hours. Check operation of the battery charger. 	Yourself
<ul style="list-style-type: none"> The scooter drives too slowly 	<ul style="list-style-type: none"> Turn the speed control knob to the right 	Yourself
<ul style="list-style-type: none"> Overheated motor 	<ul style="list-style-type: none"> Remove the jack key from the receptacle and allow the scooter to cool down. 	Yourself

Sometimes simply switching the scooter off and back on again will correct the problem.

If you cannot solve the problem by using the list above, contact your dealer.

7.2 Automatic circuit breaker

The scooter has been equipped with an automatic circuit breaker (A), located on the rear cover under the seat

In normal circumstances, the automatic circuit breaker will not pop out and the scooter will be ready for use.

When the electric circuit is overloaded or shorted, the automatic circuit breaker will switch off the electric system to prevent damage.



Overload can be caused if the motor is overheated. If the automatic circuit breaker switches off the electric circuit of the scooter, it will pop out.

By pressing the automatic circuit breaker button back in again, you can try to restart the scooter. If the automatic circuit breaker button pops out again, wait 15 to 20 minutes to allow the motor to cool off, and then try resetting again.

If you are able to restart the scooter after this, you may drive on. Make sure, however, to avoid obstacles and hills.



If the automatic circuit breaker pops out again after the motor was allowed to cool off, there may be a short circuit. In this case, do not attempt driving, but contact your dealer.

7.3 *Electro-magnetic Interference (EMI) malfunction*

Radio waves may negatively influence the drive of an electric scooter. The scooter itself may disrupt the operation of electromagnetic fields, such as those used in alarm systems and shop circuitry.

Sources of radio waves, such as radio and TV stations, amateur radio transmitters, elevators, transmitters, stereo radios, and mobile telephones may influence electric wheelchairs and scooters.

The warnings listed below are intended to prevent the scooter from driving unintentionally which could lead to serious injury.

1. Do not switch on manual items for personal communication, such as radios and mobile telephones, while the electric scooter is switched on.
2. Avoid transmitters, such as radio and TV stations, in the neighbourhood. Do not get too close.
3. If any unintended movements should occur, or if the brake is moved to its neutral position, switch off the electric wheelchair or scooter by pulling the jack key from the jack key receptacle.
4. Be aware of the fact that any accessories or components that are installed, or any alterations that are made to the scooter, may increase the influence of radio waves.

Remarks:

There is no easy way to test the effects of radio waves on the general immunity of the electric wheelchair or scooter.

5. Notify your dealer, or the manufacturer of the scooter, of all cases of unintended movements or switching to neutral. Indicate whether there is any source of radio waves in the neighbourhood.

Remarks:

The immunity level of the Fortress 1700 DT/TA is 21 Volts/meter.

8 Technical specifications

Handicare Inc:	355 Norfinch Dr. Toronto, Ontario, Canada M3N 1Y7
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8.1 Product Specifications Fortress 1700 DT/TA

Model	Fortress 1700 DT/TA 3 Wheel Fortress 1700 DT/TA 4 Wheel
Maximum user's weight	DT-350 lbs; TA-300 lbs

Description	1700 DT/TA 3W	1700 DT/TA 4W
Total length	47.5"	47.5"
Total width	24.5"	24.5"
Total weight excl. batteries: 1700 TA	155 lbs	166 lbs
Total weight excl. batteries: 1700 DT	160 lbs	171lbs
Weight of heaviest part	65 lbs (*60 lbs TA)	70 lbs
Static stability downward	15°	15°
Static stability upward	15°	15°
Static stability sideways	15°	15°
Energy consumption: theoretic maximum distance	**Up to 30 miles (50km)	**Up to 30 miles (50 km)
Dynamic stability on slopes	See Section 5.4.3, <i>Slopes</i> , p. 33-35	
Climbing capacity for obstacles	3"	3"
Maximal speed forward 1700 TA	6 mph	6 mph
Maximal speed forward 1700 DT	5.5 mph	5.5 mph
Backrest angle Captain Seat – adjustable	103-126 Deg	103-126 Deg.
Seat depth, Captain Seat	17.5"	17.5"
Seat width, Captain Seat	18"	18"
Back height, Captain Seat (excl adj. Headrest)	16"	16"
Backrest angle, High Back Captain Seat – adjustable	Not Available	100-145 Deg.
Seat depth, High Back Captain Seat	Not Available	19.75"
Seat width, High Back Captain Seat	Not Available	19.75"
Back height, High Back Captain Seat (excl. adj. headrest)	Not Available	19"
Seat height (to floor pan) ***	17", 18", 19"	17", 18" 19"
Armrest height	9" – 10.75"	9" – 10.75"
Armrest width	18" – 24"	18" – 24"

Fortress 1700 DT/TA

Description	1700 DT/TA 3W	1700 DT/TA 4W
Minimum turning radius	42"	57.5"
Capacity to drive over obstacles	3"	3"
Ground clearance	4"	4"

Operating force	
Operating-handle power	< 60 N
Resetting automatic fuse (circuit breaker)	< 60 N
Electronic switches	< 15 N
Inserting charging plug	< 60 N

Technical data	
Diameter front wheel (3 wheel)	10 " x 3"
Diameter front wheel (4 wheel)	10 " x 3"
Diameter rear wheels	10" x 3"
Tire pressure 4 wheels, front	50 psi
Tire pressure 4 wheels, rear	50 psi
Tire pressure 3 wheels, front	50 psi
Tire pressure 3 wheels, rear	50 psi

Batteries	1700 DT/TA 3W	1700 DT/TA 4W
Maximum dimensions batteries Fits up to Grp 22	7.75"x6.63"x6.88" (L x w x h)	7.75"x6.63"x6.88" (L x w x h)
Battery capacity	U-1, 40 A, Grp 22	U-1, 40 A, Grp 22
Maximum permissible charging voltage (per battery)	5 Amp	5 Amp

* refers to TA model

** range varies with user weight, tire condition, terrain type, battery charge,
And battery condition.

*** 17" seat height achieved by removing seat slider

8.2 *Authorized service and technical support*

If you have any problems or questions concerning this product, please contact your dealer.

For information about a dealer in your area, contact Handicare Canada:

Canadian Office:	Handicare Inc. 355 Norfinch Drive Toronto, ON M3N 1Y7 Tel: 1-800-514-7061
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FORTRESS 1700 SERIES

Serial #: _____

Model: _____

Colour: _____

Date: _____

Dealer stamp



handicare

Tel: 1-800-514-7061

Fax: 1-888-251-9187

info@handicare.ca

www.handicare.ca